

### ABSTRACT

A doubles detection system for detecting doubled documents. The system comprises one or more light sources disposed on a first side of a test document and one or more reflected light sensors disposed along the first side of the test document. The reflected light sensors are adapted to generate reflected light signals. The system also

5 comprises one or more transmitted light sensors disposed along a second side of the test document which are adapted to generate transmitted light signals. The system also comprises a memory having a master reflected light value and a master transmitted light value stored therein. The system comprises a processor adapted to receive the reflected light signal, generate a reflected light value for the test document, and calculate a

10 reflectance ratio between the reflected light value of the test document and a master reflected light value. The processor is also adapted to receive the transmitted light signal, generate a transmitted light value for the test document, and adjust the transmitted light value for the test document based on the reflectance ratio. The processor is adapted to compare the adjusted transmitted light value for the test document to the master

15 transmitted light value and generate a doubles signal if the comparison of the adjusted transmitted light value for the test document with the master transmitted light value indicates that more than one document is present.